Weston M Stacey

List of Publications by Year
in descending order

139	1,224	489802	591227
papers	citations	18 h-index	27 g-index

146	146	146	431
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Nodal Model for Tokamak Burning Plasma Space-Time Dynamics. Fusion Science and Technology, 2021, 77, 109-118.	0.6	0
2	Radial Transport Fluxes and Distributions Determined by Requirements for Particle, Momentum, and Energy Conservation. Fusion Science and Technology, 2020, 76, 153-156.	0.6	0
3	Change in ion orbit loss, intrinsic rotation and particle pinch across the Lâ€“H transition in DIII-D plasmas. Plasma Physics and Controlled Fusion, 2019, 61, 055007.	0.9	1
4	A Composite Neoclassical Toroidal Viscosity Model Incorporating Torques from both Axisymmetric and Nonaxisymmetric Tokamak Magnetic Fields. Fusion Science and Technology, 2019, 75, 245-250.	0.6	0
5	A Particle-, Momentum-, and Energy-Conserving Fluid Transport Theory for the Tokamak Plasma Edge. Fusion Science and Technology, 2019, 75, 251-263.	0.6	2
6	On the physics of the pressure and temperature gradients in the edge of tokamak plasmas. Nuclear Fusion, 2018, 58, 046006.	1.6	1
7	Necessary Extensions and Modification of Fluid Transport Theory for the Tokamak Plasma Edge. Fusion Science and Technology, 2018, 74, 198-210.	0.6	0
8	The dependence of ion orbit loss on ion charge and mass. Physics of Plasmas, 2018, 25, 122506.	0.7	0
9	Nuclear Reactor Physics 3e. , 2018, , .		20
10	Calculation of the radial electric field from a modified Ohm's law. Physics of Plasmas, 2017, 24, .	0.7	8
11	Dynamic Safety Analysis of a Subcritical Advanced Burner Reactor. Nuclear Technology, 2017, 200, 250-268.	0.7	2
12	Confinement Tuning of a 0-D Plasma Dynamics Model. Fusion Science and Technology, 2017, 72, 162-175.	0.6	1
13	Solving the Spent Nuclear Fuel Problem by Fissioning Transuranics in Subcritical Advanced Burner Reactors Driven by Tokamak Fusion Neutron Sources. Nuclear Technology, 2017, 200, 15-26.	0.7	5
14	Improved analytical flux surface representation and calculation models for poloidal asymmetries. Physics of Plasmas, 2016, 23, 052505.	0.7	7
15	A fluid model for the edge pressure pedestal height and width in tokamaks based on the transport constraint of particle, energy, and momentum balance. Physics of Plasmas, 2016, 23, 062515.	0.7	1
16	Recent Developments in Plasma Edge Theory. Contributions To Plasma Physics, 2016, 56, 495-503.	0.5	5
17	Improvements to an ion orbit loss calculation in the tokamak edge. Physics of Plasmas, 2016, 23, 122505.	0.7	16
18	Inclusion of ion orbit loss and intrinsic rotation in plasma fluid rotation theory. Physics of Plasmas, 2016, 23, .	0.7	13

#	Article	IF	Citations
19	A Strategic Opportunity for Magnetic Fusion Energy Development. Journal of Fusion Energy, 2016, 35, 111-116.	0.5	4
20	Extension of the flow-rate-of-strain tensor formulation of plasma rotation theory to non-axisymmetric tokamaks. Physics of Plasmas, 2015, 22, .	0.7	8
21	Evolution of edge pedestal transport between edge-localized modes in DIII-D. Physics of Plasmas, 2015, 22, .	0.7	7
22	The distribution of ion orbit loss fluxes of ions and energy from the plasma edge across the last closed flux surface into the scrape-off layer. Physics of Plasmas, 2015, 22, 042504.	0.7	15
23	Interpretation of rotation and momentum transport in the DIII-D edge plasma and comparison with neoclassical theory. Nuclear Fusion, 2014, 54, 073021.	1.6	21
24	Extensions of ion orbit loss theory. Physics of Plasmas, 2014, 21, 014502.	0.7	4
25	Sensitivity of the interpretation of the experimental ion thermal diffusivity to the determination of the ion conductive heat flux. Physics of Plasmas, 2014, 21, 042508.	0.7	2
26	Predictions of the poloidal asymmetries and transport frequencies in KSTAR. Physics of Plasmas, 2014, 21, 012504.	0.7	8
27	Structure in the Edge Plasma Profiles in Tokamaks. Contributions To Plasma Physics, 2014, 54, 524-528.	0.5	4
28	Viscous damping of toroidal angular momentum in tokamaks. Physics of Plasmas, 2014, 21, 092517.	0.7	10
29	The SABrR Concept for a Fission-Fusion Hybrid²³⁸U-to-²³⁹Pu Fissile Production Reactor. Nuclear Technology, 2014, 187, 1-14.	0.7	7
30	Resolution of Fission and Fusion Technology Integration Issues: An Upgraded Design Concept for the Subcritical Advanced Burner Reactor. Nuclear Technology, 2014, 187, 15-43.	0.7	16
31	Effect of ion orbit loss on the structure in the H-mode tokamak edge pedestal profiles of rotation velocity, radial electric field, density, and temperature. Physics of Plasmas, 2013, 20, .	0.7	16
32	Effect of non-diffusive processes on transport and its interpretation in the tokamak plasma edge. Physics of Plasmas, 2013, 20, .	0.7	2
33	Interpretation of changes in diffusive and non-diffusive transport in the edge plasma during pedestal buildup following a low-high transition in DIII-D. Physics of Plasmas, 2013, 20, 012509.	0.7	17
34	Analysis of toroidal phasing of resonant magnetic perturbation effects on edge transport in the DIII-D tokamak. Physics of Plasmas, 2013, 20, .	0.7	7
35	Interpretation of Diffusive and Nondiffusive Transport in Tokamak Edge Pedestal Measurements. Fusion Science and Technology, 2013, 63, 34-42.	0.6	3
36	Transmutation Fuel Cycle Analyses of the SABR Fission-Fusion Hybrid Burner Reactor for Transuranic and Minor Actinide Fuels. Nuclear Technology, 2013, 182, 274-285.	0.7	3

#	Article	IF	Citations
37	Intrinsic rotation produced by ion orbit loss and X-loss. Physics of Plasmas, 2012, 19, .	0.7	27
38	Principles and rationale of the Fusion-Fission Hybrid burner reactor. AIP Conference Proceedings, 2012, , .	0.3	7
39	Numerical Investigation of the Generalized Pinch-Diffusion Equations in the Edge Pedestal. Fusion Science and Technology, 2012, 61, 227-235.	0.6	3
40	X-transport of ions in diverted tokamaks, with application to DIII-D. Physics of Plasmas, 2011, 18, .	0.7	16
41	The effect of ion orbit loss and X-loss on the interpretation of ion energy and particle transport in the DIII-D edge plasma. Physics of Plasmas, 2011, 18, .	0.7	46
42	Fuel Cycle Analysis of the SABR Subcritical Transmutation Reactor Concept. Nuclear Technology, 2010, 172, 48-59.	0.7	7
43	Dynamic Safety Analysis of the SABR Subcritical Transmutation Reactor Concept. Nuclear Technology, 2010, 171, 123-135.	0.7	3
44	Analysis of neutral particle recycling and pedestal fueling in a H-mode DIII-D discharge. Physics of Plasmas, 2010, 17, .	0.7	15
45	The effects of rotation, electric field, and recycling neutrals on determining the edge pedestal density profile. Physics of Plasmas, 2010, 17, 052506.	0.7	3
46	Force balance and ion particle transport differences in high and low confinement tokamak edge pedestals. Physics of Plasmas, 2010, 17, .	0.7	8
47	Representation of the plasma fluid equations in â€œMiller equilibriumâ€•analytical flux surface geometry. Physics of Plasmas, 2009, 16, 082501.	0.7	15
48	Effect on the divertor and scrape-off layer plasma properties of the distribution of power and particle influxes from the core. Physics of Plasmas, 2009, 16, 032506.	0.7	2
49	Interpretation of particle pinches and diffusion coefficients in the edge pedestal of DIII-D H-mode plasmas. Physics of Plasmas, 2009, 16, 102504.	0.7	20
50	Georgia Tech Studies of Sub-Critical Advanced Burner Reactors with a D-T Fusion Tokamak Neutron Source for the Transmutation of Spent Nuclear Fuel. Journal of Fusion Energy, 2009, 28, 328-333.	0.5	19
51	Ion Particle Transport in the Tokamak Edge Plasma. Contributions To Plasma Physics, 2008, 48, 94-98.	0.5	32
52	Interpretation of edge pedestal rotation measurements in DIII-D. Physics of Plasmas, 2008, 15, .	0.7	35
53	Applications of the Miller equilibrium to extend tokamak computational models. Physics of Plasmas, 2008, 15, 122505.	0.7	9
54	Extension and comparison of neoclassical models for poloidal rotation in tokamaks. Physics of Plasmas, 2008, 15, 012501.	0.7	27

#	Article	IF	Citations
55	A TRU-Zr Metal-Fuel Sodium-Cooled Fast Subcritical Advanced Burner Reactor. Nuclear Technology, 2008, 162, 53-79.	0.7	39
56	Experimentally inferred thermal diffusivities in the edge pedestal between edge-localized modes in DIII-D. Physics of Plasmas, 2007, 14, 122504.	0.7	11
57	Advances in the Subcritical, Gas-Cooled, Fast Transmutation Reactor Concept. Nuclear Technology, 2007, 159, 72-105.	0.7	8
58	Tokamak Fusion Neutron Source for a Fast Transmutation Reactor. Fusion Science and Technology, 2007, 52, 727-730.	0.6	8
59	A Survey of Thermal Instabilities in Tokamak Plasmas: Theory, Comparison with Experiment, and Predictions for Future Devices. Fusion Science and Technology, 2007, 52, 29-67.	0.6	12
60	Sub-Critical Transmutation Reactors with Tokamak Fusion Neutron Sources Based on ITER Physics and Technology. Fusion Science and Technology, 2007, 52, 719-726.	0.6	3
61	Fuel Cycle Analysis of a Subcritical Fast Helium-Cooled Transmutation Reactor with a Fusion Neutron Source. Nuclear Technology, 2007, 158, 94-108.	0.7	6
62	A Subcritical, Helium-Cooled Fast Reactor for the Transmutation of Spent Nuclear Fuel. Nuclear Technology, 2006, 156, 99-123.	0.7	13
63	Rotation Velocities and Radial Electric Field in the Plasma Edge. Contributions To Plasma Physics, 2006, 46, 597-603.	0.5	6
64	Investigation of edge pedestal structure in DIII-D. Physics of Plasmas, 2006, 13, 012513.	0.7	15
65	Higher order approximations of the transmission and escape probability method for neutral particle transport in edge plasmas. Physics of Plasmas, 2006, 13, 062509.	0.7	7
66	A neoclassical calculation of toroidal rotation profiles and comparison with DIII-D measurements. Physics of Plasmas, 2006, 13, 062508.	0.7	30
67	A Subcritical, Gas-Cooled Fast Transmutation Reactor with a Fusion Neutron Source. Nuclear Technology, 2005, 150, 162-188.	0.7	20
68	Sub-Critical Transmutation Reactors with Tokamak Fusion Neutron Sources. Fusion Science and Technology, 2005, 47, 1210-1218.	0.6	11
69	Application of a particle, momentum, and energy balance model to calculate the structure of the edge pedestal in DIII-D. Physics of Plasmas, 2005, 12, 042504.	0.7	8
70	Investigation of transport in the DIII-D edge pedestal. Physics of Plasmas, 2004, 11, 1511-1519.	0.7	11
71	Structure of the edge density pedestal in tokamaks. Physics of Plasmas, 2004, 11, 4295-4304.	0.7	16
72	Particle transport and density gradient scale lengths in the edge pedestal. Contributions To Plasma Physics, 2004, 44, 100-104.	0.5	0

#	Article	IF	Citations
73	Nuclear Design and Analysis of the Fusion Transmutation of Waste Reactor. Fusion Science and Technology, 2004, 45, 51-54.	0.6	10
74	A Superconducting Tokamak Fusion Transmutation of Waste Reactor. Fusion Science and Technology, 2004, 45, 55-59.	0.6	14
75	A framework for the development and testing of an edge pedestal model: Formulation and initial comparison with DIII-D data. Physics of Plasmas, 2003, 10, 2412-2421.	0.7	14
76	Comparative Fuel Cycle Analysis of Critical and Subcritical Fast Reactor Transmutation Systems. Nuclear Technology, 2003, 144, 83-106.	0.7	27
77	Neoclassical calculation of poloidal rotation and poloidal density asymmetries in tokamaks. Physics of Plasmas, 2002, 9, 3874-3883.	0.7	24
78	Comparision of neoclassical rotation theory with experiment under a variety of conditions in DIII-D. Physics of Plasmas, 2002, 9, 1622-1628.	0.7	18
79	A Fusion Transmutation of Waste Reactor. Fusion Science and Technology, 2002, 41, 116-140.	0.6	38
80	Tokamak Transmutation Facility Studies. Fusion Science and Technology, 2001, 39, 525-529.	0.6	8
81	Interface Current Integral Transport Methods for the Calculation of Neutral Atom Transport in the Edge Region of Fusion Plasmas. Fusion Science and Technology, 2001, 40, 66-78.	0.6	6
82	A Variational Synthesis Nodal Discrete Ordinates Method. Nuclear Science and Engineering, 1999, 132, 181-193.	0.5	3
83	A coupled plasma-neutrals model for divertor simulations. Physics of Plasmas, 1998, 5, 1015-1026.	0.7	46
84	A Tokamak Tritium Production Reactor Design II. Fusion Science and Technology, 1998, 33, 443-455.	0.6	2
85	A New Variational Functional for Space-Time Neutronics. Nuclear Science and Engineering, 1997, 125, 101-106.	0.5	5
86	Variational Estimates for Use with the Improved Quasistatic Method for Reactor Dynamics. Nuclear Science and Engineering, 1997, 126, 282-292.	0.5	9
87	Radioactive Waste Disposal Characteristics of Candidate Tokamak Demonstration Reactors. Fusion Science and Technology, 1997, 31, 35-62.	0.6	9
88	A Tokamak Tritium Production Reactor. Fusion Science and Technology, 1997, 32, 563-589.	0.6	17
89	Corrected Fluid Equations for the Plasma Edge. Fusion Science and Technology, 1995, 27, 277-291.	0.6	10
90	Poloidal rotation, density asymmetries, and momentum confinement in tokamak experiments. Physics of Fluids B, 1993, 5, 1828-1835.	1.7	15

#	Article	IF	Citations
91	Neoclassical theory of the plasma edge. Physics of Fluids B, 1993, 5, 1413-1420.	1.7	13
92	Poloidal rotation and density asymmetries in a tokamak plasma with strong toroidal rotation. Physics of Fluids B, 1992, 4, 3302-3309.	1.7	22
93	Viscous effects in a collisional tokamak plasma with strong rotation. Physics of Fluids, 1985, 28, 2800-2807.	1.4	79
94	Future Technology Requirements For Magnetic Fusion-An Evaluation Based On Conceptual Design Studies. Nuclear Technology/Fusion, 1984, 5, 266-290.	0.5	8
95	Turbulent Transport. , 0, , 267-284.		0
96	Appendix F: Further Reading. , 0, , 539-541.		0
97	Appendix E: Plasma Formulas1. , 0, , 537-538.		0
98	Appendix G: Attributions. , 0, , 543-548.		0
99	Basic Physics. , 0, , 1-20.		0
100	Motion of Charged Particles. , 0, , 21-39.		0
101	Magnetic Confinement. , 0, , 41-63.		0
102	Kinetic Theory. , 0, , 65-83.		0
103	Fluid Theory. , 0, , 85-101.		3
104	Plasma Equilibria. , 0, , 103-130.		0
105	Instabilities. , 0, , 155-204.		0
106	Neoclassical Transport. , 0, , 205-250.		0
107	Plasma Rotation*. , 0, , 251-266.		1
108	Divertors. , 0, , 331-360.		0

#	Article	IF	Citations
109	Heating and Current Drive. , 0, , 285-314.		0
110	Plasma-Material Interaction. , 0, , 315-330.		0
111	Plasma Edge. , 0, , 361-412.		0
112	Neutral Particle Transport*. , 0, , 413-462.		0
113	Power Balance. , 0, , 463-478.		0
114	Operational Limits. , 0, , 479-500.		0
115	Fusion Reactors and Neutron Sources. , 0, , 501-517.		1
116	Appendix A: Frequently Used Physical Constants. , 0, , 521-522.		0
117	Appendix B: Dimensions and Units. , 0, , 523-525.		0
118	Appendix C: Vector Calculus. , 0, , 527-528.		0
119	Appendix D: Curvilinear Coordinates. , 0, , 529-536.		0
120	Neutron Diffusion Theory. , 0, , 43-100.		1
121	Nuclear Reactor Dynamics. , 0, , 143-195.		14
122	Appendix A: Physical Constants and Nuclear Data. , 0, , 669-674.		0
123	Neutron Nuclear Reactions. , 0, , 1-32.		0
124	Neutron Slowing Down. , 0, , 385-414.		0
125	Resonance Absorption. , 0, , 415-451.		0
126	Neutron Thermalization. , 0, , 453-481.		0

#	Article	IF	Citations
127	Perturbation and Variational Methods. , 0, , 483-514.		0
128	Homogenization. , 0, , 515-540.		0
129	Nodal and Synthesis Methods. , 0, , 541-597.		0
130	Spaceâ€“Time Neutron Kinetics. , 0, , 599-667.		0
131	Neutron Chain Fission Reactors. , 0, , 33-42.		0
132	Neutron Energy Distribution. , 0, , 101-142.		0
133	Nuclear Power Reactors. , 0, , 249-282.		16
134	Reactor Safety. , 0, , 283-302.		1
135	Neutron Transport Theory. , 0, , 303-383.		1
136	Fuel Burnup. , 0, , 197-247.		1
137	Appendix C: Step Functions, Delta Functions, and Other Functions. , 0, , 677-680.		0
138	Appendix B: Some Useful Mathematical Formulas. , 0, , 675-676.		0
139	Appendix D: Some Properties of Special Functions. , 0, , 681-685.		0